

## PATENT ABSTRACTS OF JAPAN

(11)Publication number : 10-300375

(43)Date of publication of application : 13.11.1998

(51)Int.Cl.

F28F 1/32

(21)Application number : 09-110571

(71)Applicant : HITACHI LTD

(22)Date of filing : 28.04.1997

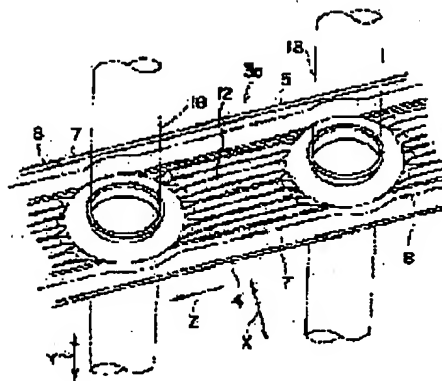
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### (54) HEAT EXCHANGER

#### (57)Abstract:

**PROBLEM TO BE SOLVED:** To make the depth of a heat conductive fin small, and secure the rigidity and heat conduction performance, by making the continuous ridge of an uneven stripe, which continues in the Z direction orthogonal to the X and Y directions and also projects and is recessed in Y direction in the vicinity of one end at least in the X direction of the heat conductive fin, bypass a heat conductive pipe.

**SOLUTION:** Heat conductive fins 3 are arranged in parallel with one another in Y direction orthogonal to the X direction where the air being the first fluid flows, and a heat conductive pipe 18 wherein the second fluid to exchange heat with the air flows connects these plural heat conductive fins 3a, piercing them vertically. Furthermore, the heat conductive fin 3a is equipped with an uneven stripe 7 which continues in Z direction orthogonal to both X and Y directions and also projects and is recessed in Y direction, in the vicinity of one end 4 and the other end 5 in X direction, and this continuous ridge bypasses the outside of the heat conductive pipe 18, whereby this raises the rigidity of the heat conductive fin 3b. Accordingly, the depth of the heat conductive fin can be made small while keeping the rigidity enough.



### LEGAL STATUS

[Date of request for examination] 07.02.2001

[Date of sending the examiner's decision of rejection] 26.02.2002

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision  
of rejection]

[Date of requesting appeal against examiner's  
decision of rejection]

[Date of extinction of right]

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